

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1. (Currently Amended) A method of encoding an information bit sequence forming a code block in a communication device of a communication system, the method comprising the steps of:

distributing the bits of the information bit sequence forming a code block having a length k bits into a plurality of n subsets of information bits, each subset forming a code block segment having a length k_1, \dots, k_n bits respectively;

varying the length of at least one code block segment by supplementing the code block segment with information bits by partial repetition of the information bit sequence which have also been distributed to at least one different code block segment ~~or by zero stuffing~~ to obtain at least two code block segments of different lengths, such that the sum of the lengths k_1, \dots, k_n of the code block segments is larger than the code block length k ; and

encoding the code block segments and the at least one supplemented code block segment individually using at least one encoding method.

2. (Previously Presented) The method according to claim 1, further comprising the step of encoding the information bit sequence forming the code block individually and separate from the encoding operations of the plurality of code block segments.

3. (Previously Presented) The method according to claim 2, wherein the step of encoding the information bit sequence is performed in a second coding branch arranged in parallel to a first coding branch, wherein the distribution and encoding operations on the plurality of code block segments are performed in the first coding branch independently of the encoding operations in the second coding branch.

4. (Previously Presented) The method according to claim 1, wherein the encoding steps of the code blocks and/or the code block segments are performed in a time diversity manner.

5. (Previously Presented) The method according to claim 1, further comprising the additional step of buffering at least a portion of either the code block or the code block segments prior to the encoding step.

6. (Previously Presented) The method according to claim 1, wherein the encoding of the code block segments or code blocks is performed using different encoding methods.

7. (Previously Presented) The method according to claim 1, wherein the encoding steps use at least one of convolutional codes, trellis codes, turbo codes, Reed-Solomon codes, parity check codes.

8. (Previously Presented) The method according to claim 1, wherein the encoding step of the code block segments or code blocks is performed in a plurality of parallel coding subbranches.

9. (Previously Presented) The method according to claim 1, wherein the information bits of the code block segments are at least partly identical to each other to form an information overlap.

10. (Previously Presented) The method according to claim 1, wherein the segmentation of the code blocks is performed into code block segments of equal length.

Claim 11 (Cancelled).

12. (Previously Presented) The method according to claim 1, wherein the bits of the code blocks and code block segments are combined after encoding to form a code word corresponding to the original information bit sequence before encoding.

13. (Previously Presented) The method according to claim 1, further comprising the step of interleaving the information bits of one or more coding branches and/or subbranches.

14. (Original) The method according to claim 13, wherein the interleaving step uses different interleaving patterns for different coding branches or subbranches.

15. (Previously Presented) The method according to claim 13, wherein the step of interleaving the information bits is performed after distribution and prior to the encoding step into code block segments.

16. (Previously Presented) The method according to claim 1, further comprising the step of adjusting the length of the code block prior to its separation into code block segments.

17. (Previously Presented) The method according to claim 16, wherein the adjustment is obtained by appending termination bits to the information bit sequence in at least one coding branch or coding subbranch.

18. (Previously Presented) The method according to claim 1, further comprising the step of including an error detection code inserted before the encoding step.

19. (Previously Presented) The method according to claim 1, wherein the distribution is performed by periodically switching the input bit sequence to at least one of the coding branch or subbranch and repeating the application of bits of the input bit sequence to another coding branch or subbranch.

20. (Previously Presented) The method according to claim 1, wherein the distribution is performed using a transition vector or matrix which signifies which input bit shall be distributed to which coding branch or subbranch.

21. (Previously Presented) The method according to claim 1, wherein the distribution is performed using a puncturing vector or matrix that determines which bits can pass through and which bits are removed for a particular coding branch or subbranch.

22. (Previously Presented) The method according to claim 1, further comprising the step of choosing which part of the information bit sequence has higher priority than other parts of said sequence and selecting this part of the information bit sequence for the supplementing step, wherein the information bits are distributed to different code block segments.

Claims 23 and 24 (Cancelled).

25. (Currently Amended) An encoder for a communication device of a wireless communication system for encoding an information bit sequence forming a code block, the encoder comprising:

a distributing section that distributes bits of the information bit sequence forming the code block and having a length k bits into a plurality of n subsets of information bits, each subset forming a code block segment having a length k_1 to k_n bits respectively;

a supplementing section that varies the length of at least one code block segment by supplementing the code block segment with information bits by partial repetition of the information bit sequence which have also been distributed to at least one different code block segment ~~or by zero stuffing~~ to obtain at least two code block segments of different lengths, such that the sum of the lengths k_1 to k_n of the code block segments is larger than the code block length k ; and

an encoding section that encodes the code block segments and the at least one supplemented code block segment individually using at least one encoding method.